

KNOWLEDGE

VOL. 4 MAY 2010

OFFICIAL SAFETY MAGAZINE OF THE U.S. ARMY



RECIPE FOR AN ACCIDENT



TAKE A HIKE p. 8



ROAD LESS TRAVELED p. 16



ENOUGH'S ENOUGH p. 28



SINK OR SWIM? p. 12



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& SISTERS**

KNOWLEDGE

OFFICIAL SAFETY MAGAZINE OF THE U.S. ARMY

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We welcome your feedback. Please e-mail comments to safe.knowledge@conus.army.mil.

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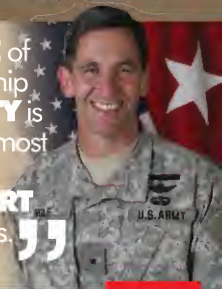
Around the globe, motorcyclists throughout our great Army are removing the dust covers from their bikes and charging up the batteries, eager to begin the 2010 riding season. Ask any motorcycle enthusiast what they enjoy most about their hobby and they'll probably tell you it's the exhilaration and freedom that comes with open air and a long stretch of highway. With more motorcycles than ever registered on Army installations, it's clear riding has become the off-duty activity of choice for many of our Soldiers.

All the things that make motorcycling great, however, are also what make it so risky for inexperienced or undisciplined riders. Even so, during fiscal 2009, our Army made significant progress in turning the arrow down on motorcycle fatalities, with a 37-percent overall reduction from the previous fiscal year. The good news is we're on track to push that number even lower in fiscal 2010. More than halfway through the year, we've experienced three fewer fatalities as compared to the same time frame in fiscal 2009.

Although we've made great strides in reducing these fatalities, we haven't been able to escape the problem



The **IMPORTANCE** of **ENGAGED** leadership in **SOLDIER SAFETY** is without question the most **IMPORTANT** and **ENDURING EFFORT** we **OWE** our Soldiers.



OWNERSHIP OUR SAFETY

of indiscipline. Of the last 22 fatal accidents where speed was reported, 18 were attributed to excessive speed. And in the 33 fatal accidents between fiscal 2009 and to date in 2010 where the status of Motorcycle Safety Foundation training is known, an overwhelming 85 percent had completed an approved MSF course. These statistics show that even when these Soldiers had the proper training, many still chose to disregard the standard at the cost of their futures.

During the past few years, our Army leadership has responded to these issues with a variety of innovative programs geared toward keeping our Soldiers safe and responsible on their motorcycles. Included among these initiatives are the highly successful Motorcycle Mentorship Program (MMP), which pairs novice riders with experienced mentors in a friendly, peer group setting, and investment in motorcycle simulators to prepare Soldiers for common hazards on the open road.

Another best practices initiative that's gaining ground on our installations is the progressive training model, where Soldiers begin their motorcycle safety experience in the Army-mandated Basic RiderCourse, but

progress through higher-level training to build upon and sustain advanced riding skills. This initiative will be fully resourced in fiscal 2012 and beyond across our Army, but these great efforts at installations across the force are making a big difference already.

The importance of engaged leadership in Soldier safety is without question the most important and enduring effort we owe our Soldiers. Ultimately, it is up to the individual to make the right decisions to stay alive, but Leaders and buddies can help. As we observe Motorcycle Safety Awareness Month this May, I ask you to take ownership of your safety and find out if your installation offers any of these great programs. More information on the MMP, installation-specific rider associations and clubs and upcoming rider events are all available on the USACR/Safety Center Web site at <https://safety.army.mil/mmp/>. Always remember that even when you're off the installation, your duties and obligations as a Soldier remain, regardless of state or local law, so keep that personal protective equipment on and wear it properly.

The next few months will offer perfect conditions for riding and other fun activities, so make sure you're

prepared for wherever the road may take you. We kicked off our annual Army Safe Summer campaign in April, and a wealth of summer safety information is available via the "Campaign Corner" tab on our Web site. Please share this information with your fellow Soldiers and Families to make this summer your most enjoyable yet.


Thank you for what you do every day for our nation and our Army. Our Band of Brothers and Sisters remains strong due to your work and dedication, and I wish each of you a safe and happy start to the summer season.

Army Safe Is Army Strong!

WILLIAM T. WOLF
Brigadier General, USA
Director of Army Safety

RECIPE FOR AN ACCIDENT

COMPILED BY THE KNOWLEDGE STAFF



The squadron task force had been in country for several months flying reconnaissance and security missions. The crew day started out like any other for the scout weapons team (SWT), flying out of a forward operating base in Afghanistan. The SWT consisted of two OH-58D aircraft. Chalk 1 was responsible for performing the low-level reconnaissance, while their wingman provided overall area security.



This day's mission was to conduct a show-of-force operation followed by named areas of interest (NAI) reconnaissance of a remote village. The weather forecast was for clear skies and unrestricted visibility with the day's high temperature slightly above 100 F. The highest NAI reconnoitered was at about 5,000 feet mean sea level. Chalk 1's pilot in command (PC) and troop maintenance pilot had almost 3,000 hours total flight time. His co-pilot (PI) had nearly 900 hours, with half of that combat time.

The SWT refueled at a nearby forward arming and refueling point (FARP). Weighing 5,100 pounds, the aircraft departed the FARP within the maximum gross weight of 5,200 pounds. Following refuel, the SWT shifted to the north and began reconnaissance

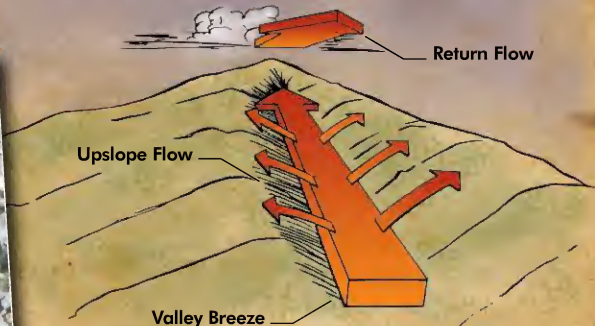
of an area known to be frequented by insurgent forces.

Chalk 1 moved east from a valley to an adjacent parallel draw to explore a second NAI. The valley and the draw were generally oriented north/south. Chalk 2 orbited high over the draw to cover Chalk 1 as they conducted the reconnaissance. Chalk 1 entered the draw at 40 knots indicated airspeed (KIAS) at an altitude of about 100 feet above ground level and began to maneuver up the draw to the northeast. About halfway up, Chalk 1 turned to the eastern side of the draw and continued up with an approximate heading of 040 degrees. As they maneuvered up the draw, both crewmembers focused their attention outside the aircraft, unaware their airspeed and altitude were

steadily decreasing. Within a few minutes, their airspeed had slowed to less than 20 KIAS and the aircraft lost translational lift. Both crewmembers instantly realized they had gotten into a situation where they didn't have enough power to continue maneuvering safely.

The forecasted winds were from 090 degrees at 9 knots. However, unbeknownst to the crew, the predominant winds in this area had shifted to winds from the south at 10 knots. The winds in the draw at this time were about 10 to 15 knots from 220 degrees. This was a result of the channeling effect in mountainous areas. The predominant winds in the area were from 170 degrees, but the predominant winds channel off into the adjacent valleys and draws (as depicted below).

WHAT HAPPENED?



The acceleration of these winds as they move upward in progressively narrowing terrain is known as the venturi effect. Chalk 1 had an estimated heading of 014 degrees, which created a left-quartering 15-knot tailwind. This tailwind occurred in an aerodynamic region where the weathercock stability and vortex ring state areas exist. Winds within the weathercock region will attempt to weathervane the aircraft into the relative wind. In addition to this, winds within the vortex ring state can cause tail rotor thrust variations. These two conditions acted on the aircraft simultaneously and created a condition where aircraft control did not feel normal to the pilot on the controls.

The crew decided to get out of this precarious condition by flying

back down the draw. The PI cleared the aircraft left, which was the most expeditious way to exit the draw. Initially, the PC turned left, but stated that it didn't feel right. The PC then turned right, which was the side of the aircraft where he was seated. Almost immediately, he realized he had turned into rising terrain and did not have enough space to continue the sharp turn to avoid the terrain. He then reversed course and turned left in an effort to complete a 270-degree turn to begin a descent down the draw. Shortly thereafter, the wind forced the crew into a controlled shallow descent into terrain.

The PC applied 97 percent of the continuous torque available, which meant he still had another 3 percent. He could have entered a 10-second transient condition where he would have had up to 116 percent torque available to "execute his out," that is, complete his turn to fly back down the draw

and regain airspeed and altitude. Add the 3 percent remaining in his normal operating range with the 10-second transient power available, and the crew had almost 19 percent added torque available to get out of this situation. However, the PC was reluctant to approach his continuous maximum torque available because he was concerned with getting into an engine overtorque condition. He selected a relatively small, but flat, rocky outcropping to land.

The aircraft continued to settle and there was a brief pause, at which time the PC attempted to resume flight by applying collective. Shortly thereafter, the crew heard a loud pop, as the main rotor blades contacted tall bushes. Immediately the crew felt violent vibrations throughout the aircraft, followed by a loss of control. This resulted in the aircraft rapidly yawing to the right and subsequently rolling downhill.



Lessons Learned

- **Flight in mountainous terrain.** The PC failed to monitor the changing environmental conditions after the crew departed the FARP to begin their reconnaissance mission in mountainous terrain. These changing environmental conditions included winds in the draw, along with increasing mean sea level and ambient temperatures.
- **Cross-checking instruments.** The PC, who was the pilot on the flight controls, failed to crosscheck inside the cockpit. By doing this, he was not cognizant of his decreasing airspeed or his increasing torque and turbine gas temperature (TGT). This information was necessary for proper decision-making to maintain a safe flight profile as he ascended the draw. The PC's actions reflected a combination of overconfidence and complacency. The PC had almost 3,000 total hours and had been conducting routine combat missions in this area of operation for several months. He was confident in his ability to perform a relatively simple day visual flight rules reconnaissance mission. Training Circular 1-248, OH-58D Aircrew Training Manual (ATM), page 4-3: Chapter 4, discusses the need for the pilot on the controls to conduct momentary scans inside the cockpit during crosschecks. The ATM also specifies the crew briefing checklist in Chapter 4.
- **Crew coordination.** Inadequate crew coordination began from the time the aircraft refueled until ground impact 20 minutes later. The PC did not solicit PI assistance in resolving his underpowered condition as it developed. If the PI was cognizant of the decreasing airspeed, the high torque setting and the high TGT condition, he should have spoken up and provided the necessary information to assist the pilot on the controls. If crew coordination had been conducted, the outcome might have been different. Instead, these three "ingredients" became a recipe for an accident. ◀

ARE YOU READY?

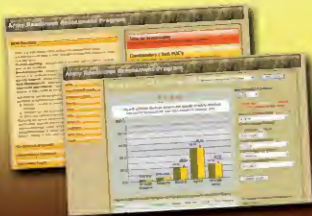


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TAKE A

MICHAEL WOOD
8th Army (Field Army)
South Korea

Hike


For many Americans, a trip to the great outdoors can be the perfect way to leave behind the hustle and bustle of everyday life. Before communing with Mother Nature, however, hikers and campers must first ensure they're properly prepared.

Every year, Families load up their gear for camping or hiking getaways into the wilderness or mountains. While these outdoor activities may seem relatively safe, they can be deadly for those who don't take the appropriate safety precautions.

Since fiscal 2005, the Army has lost five Soldiers to off-duty hiking and mountain climbing accidents — all attributed to falls. Earlier this year, a Soldier died when he fell about 400 feet from a cliff while hiking with a friend. At the time of the accident, the Soldier was attempting to retrieve equipment he had dropped during a previous hike.

Before heading out for any outdoors adventure, it's important to plan ahead. Campers and hikers should learn as much as possible about the area they will visit. They should have a written plan of activities, a map of the area, emergency phone numbers and the locations of medical assistance, lodges and park rangers. It's also a good idea to leave a copy of these plans with someone at home.





Once at their destination, the California Department of Parks and Recreation recommends hikers and campers adhere to the following safety tips:

- Always hike with a friend or Family member.
- Take plenty of drinking water. Leave stream, river and lake water for the park wildlife. Although it looks clean and refreshing, mountain stream water can make you ill.
- Always let someone back at camp or home know where you're going and when you plan to return. Take a mobile phone for emergencies or to let them know you have returned safely.
- Don't leave the hiking trail. Doing so increases the chances of suffering an injury or getting lost.
- Be aware of local wildlife. Whenever you encounter wildlife on a trail, keep your distance, back away slowly and do not run. Report your sightings to a park ranger.

After a long day of trekking through the woods, many hikers like to spend the evening relaxing by a campfire. By following a few simple fire safety rules from the U.S. Department of Agriculture Forest Service, you can prevent a smoldering ember from becoming a wildfire.

- Dig a small pit away from overhanging branches. (Most parks have campfire pits ready and waiting for you.)
- Circle the pit with rocks or be sure it already has a metal fire ring.
- Clear a 5-foot area around the pit down to the soil.
- Keep a bucket of water and shovel nearby.
- Stack extra wood upwind and away from the fire.
- After lighting, do not discard the match until it is cold.
- Never leave a campfire unattended, not even for a minute.

The weather can also present challenges to hikers and campers. The National Oceanic and Atmospheric Administration reports that lightning, which is a serious hazard to any outdoor recreational activity, kills an average of 62 people a year.

If you find yourself unexpectedly caught in inclement weather while hiking or camping, do not seek shelter under tall trees, tents or near metal objects. The best shelter is a building or your vehicle. If caught in open terrain, seek lower areas and stay at least 15 feet from other members of your group.

There's nothing quite like the sights and sounds of nature. By placing safety first, you can help ensure your Family's outdoor activities are enjoyable experiences for years to come.◀

IT LOOKED EASY



ON TV

CHIEF WARRANT OFFICER 2 JUSTIN BOWSER
A Troop, 7th Squadron, 17th Cavalry Regiment
Fort Campbell, Ky.

How often do you see a professional do something tricky and make it look easy on TV? You know what usually follows — a narrator warning you, “Do not try this at home.” Suppose there’s a good reason they give these warnings?

A few years ago, a friend and I were on our dirt bikes in a popular off-road riding area. We stopped our bikes at the bottom of a very tall hill and talked about how we’d never seen anyone make it to the top. Not only was it steep, erosion had uncovered the top foot of a gas line running from the hill’s top to its bottom. Moments later, a guy rode up on a new dirt bike, wearing all new riding gear. You could tell he had just bought the bike. It was probably the first time he had ridden it, since there weren’t any scratches, nicks or dings.

We were surprised when he suddenly gave his bike full throttle and started flying up the hill. By the time he made it a quarter of the way, we could see he lacked experience by the trouble he was having staying on his bike. He made it about three-quarters of the way up when the bike violently flipped backward. When it did, he landed on the exposed gas pipe and tumbled to the bottom of the hill — his bike right behind

him. My buddy stopped the bike so it didn’t land on the rider.

When we asked him how long he’d been riding, he said about a week. We then asked him why he would try to climb such a big hill when he didn’t know how to ride. He said it looked easy on TV and he thought he could make it.

That got me thinking. How many times have we, as Leaders, talked to our Soldiers about the dangers of riding on the street? We’ve put control measures in place, requiring Soldiers take special training to ride safely and within the regulations. However, when Soldiers buy a dirt bike or an all-terrain-vehicle (ATV), we often don’t even ask if they know how to ride it. Typically, we just tell them to be careful and have a good time over the weekend. We just assume they’ve already ridden a dirt bike or ATV and know the dangers.

A growing number of Soldiers are taking advantage of the relatively low price of dirt bikes and ATVs and buying them. The problem is many Soldiers arrive at the motorcycle

dealership unaware of how to pick a machine suited for their skill level. Instead, they tend to buy the biggest one they can afford. This can be extremely dangerous because these machines perform very differently, depending on engine size. For example, a Soldier who could learn to ride safely on a 125cc motorcycle might end up killing himself trying to control a 450cc dirt bike. The same goes for ATVs. Operating a four-wheel-drive quad is completely different from riding an ATV used for racing.

The point I’m trying to make is we need to include dirt bike and ATV training into our motorcycle safety programs. Soldiers often don’t know the proper personal protective equipment (PPE) for off-road riding and lack a mentorship program to help them with their new dirt bike or ATV. The accident in this article could’ve been prevented had the rider been accompanied by a more experienced rider who could warn him the climb was way beyond his skill level.

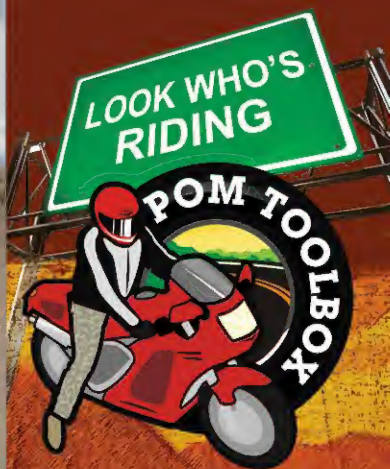


So, what can we do?
I suggest we appoint a mentor in our units who can help new dirt bike and ATV riders avoid buying more machine than they can safely handle. By better

matching the machine to the rider's skills, we can help prevent accidents in the near term and build good riding skills for the long term. We also need motorcycle mentorship programs (MMPs) for new off-road riders. Experienced off-road riders can take new dirt bike and ATV riders out and show them the basics so their learning curve isn't punctuated with accidents.

Soldiers often go riding alone on the weekends without letting anyone know where they're riding. Eight years ago, a Soldier crashed on a remote dirt road and died because there was no one around to help him. To avoid repeating that, it's important to establish a check-out and check-in policy with a friend or Leader who'll know where to start looking if we don't make it home that night. I can't imagine being stranded in the woods for days with a broken back, hoping someone would eventually ride by and find me.

Off-road riding might look easy, but it takes a great deal of training and many hours of practice to become proficient. Many of the riders you see on TV began riding motorcycles at a young age and were trained by professional riders to improve their skills. Just as it is vital to get proper training to ride safely on the street, it's also essential off-road riders seek training from qualified personnel and then practice, practice, practice!☘



The Privately Owned Motorcycle (POM) Risk Management Toolbox is designed as a tool for commanders, Leaders, supervisors and subordinates to use in their organizations. The toolbox contains best practice examples and lessons learned that can be used as accident prevention measures when developing a unit POM safety program.

**Give it a
Test Ride Today!**

<https://safety.army.mil/>

SINK or Swim?

COURTESY OF THE U.S. COAST GUARD
www.uscgboating.org

A skydiver wouldn't dare jump from a plane without a parachute. So why would a boater choose to not wear a personal flotation device (PFD)?

Boaters enjoy the feel of sun and spray, so it's tempting for some to boat without wearing a PFD — especially on nice days. Others might use the excuse that PFDs are bulky and uncomfortable. While that might have been the case in the past, modern PFDs are available in a wide variety of shapes, colors and sizes. Many

are thin and flexible, and some are inflatable and as compact as a scarf or fanny pack until they hit water, when they automatically fill with air. With all of these options, there's now no reason not to wear a PFD on the water.

The U.S. Coast Guard estimates that PFDs could have saved the lives of more than 80 percent of

boating fatality victims. As a boat operator, you're in command of the safety of your passengers. Accidents can — and do — happen with terrifying speed on the water. Because there's rarely time to reach stowed PFDs, it's recommended everyone on the boat wear theirs at all times while afloat. The Coast Guard offers the following tips to help ensure you stay safe on the water:



Test Your PFD

- Try on your PFD to see if it fits comfortably snug. A PFD is designed to not ride up on the body when in the water. But, when a wearer's stomach is larger than the chest, ride-up may occur. Before using a PFD, test it in the water to establish that excessive ride-up does not impair the device's performance.
- To check the buoyancy of your PFD in the water, relax your body and let your head tilt back. Make sure your PFD keeps your chin above water and you can breathe easily.

- Be aware that your PFD may not act the same in swift or rough water as in calm water. The clothes you wear and the items in your pockets may also change the way your PFD works.
- If your mouth is not well above the water, get a new PFD or one with more buoyancy.

Wear Your PFD

- Most drownings occur way out at sea, right? Wrong! Actually, nine out of 10 drownings occur in inland waters, and most victims were within a few feet of safety.

Most of the victims owned PFDs, but they died without them. A wearable PFD can save your life — if you wear it.

- If you haven't been wearing your PFD because of the way it makes you look or feel, there's good news. Today's PFDs fit better, look better and are easy to move around in.
- Before you shove off, make sure all aboard are wearing PFDs. To work best, PFDs must be worn with all straps, zippers and ties fastened. Tuck in any loose strap ends to avoid getting hung-up.



For more information about boating safety and personal flotation devices, visit the Personal Flotation Device Manufacturers Association Web site at www.pfdma.org/ or <http://boatsafe.com/>.



- When you don't wear your PFD, the odds are against you. You're taking a chance on your life.

Proper Care for a PFD

- Don't alter a PFD. If yours doesn't fit, get one that does. Play it safe. An altered PFD may not save your life.

- Don't put heavy objects on your PFD or use it for a kneeling pad or boat fender. PFDs lose buoyancy when crushed.
- Let your PFD drip dry thoroughly before putting it away. Always stow it in a well-ventilated place.
- Don't leave your PFD onboard for long periods when the boat is not in use.
- Never dry your PFD on a radiator, heater or any other direct heat source.
- Put your name on your PFD if you're the only wearer.

Teach Them Young

All states have regulations regarding PFD wear by children. Because an adult-sized device will not work for children, special

PFDs are available. Child PFD approvals are based on the child's weight. Check the user weight on the label or the approval statement. It will read something like, "Approved for use ... by persons weighing ___ lbs." They can be marked "less than 30," "30 to 50," "less than 50" or "50 to 90."

To work properly, a PFD must fit snugly on a child. To check for a good fit, pick up the child by the shoulders of the PFD. If it fits properly, the child's chin and ears will not slip through. However, PFDs are not babysitters. Even though a child wears a PFD when on or near the water, an adult should always be there too. Parents need to remember that inflatable toys and rafts should not be used in place of a PFD.

Outfitting your child with a proper-fitting PFD is only the first step. They must also know



LIFE SAVERS

To meet U.S. Coast Guard (USCG) requirements, a boat must have a USCG-approved personal flotation device (PFD) for each person aboard. Boats 16 feet and longer must also have at least one throwable flotation device. The following are the recommended types of PFDs.

- **Type I (offshore life jacket)** — Designed for extended survival in rough, open water. It usually will turn an unconscious person face up. This is the best PFD to keep you afloat in remote regions where rescue may be slow in coming.
- **Type II (near-shore buoyant vest)** — Comes in several sizes for adults and children and is for

calm inland water where there is a chance of fast rescue. It is less bulky and less expensive than a Type I, and many will turn an unconscious person face-up in the water.

- **Type III (flotation aid)** — Considered the most comfortable, with styles for different boating activities and sports. They are for use in calm water where there

is a good chance of fast rescue since they will generally not turn an unconscious person face-up. Flotation aids come in many sizes and styles.

- **Type IV (throwable device)** — Designed to be thrown to a person in the water. Throwable devices include boat cushions, ring buoys and horseshoe buoys.

what to do if they unexpectedly end up in the water. Children tend to panic when they suddenly fall into the water. This causes them to move their arms and legs violently, making it hard to float safely in a PFD. While the PFD will keep a child afloat, it might not keep a struggling child face-up. That's why it's so important to teach children how to put on a PFD and help them get used to wearing one in the water.

Conclusion

A PFD can save your life should your boat capsize on rough water, if you're thrown from the boat as a result of a collision or if you're unable to swim because of heavy or waterlogged clothing. There are a lot of new options now available for boaters, so try them out and see what's recommended for your water-related activities. Remember, the best PFD is the one you wear. <<



They are not designed to be worn and must be supplemented by a wearable PFD. It is important to keep these devices immediately available for emergencies, and they should not be used for small children, nonswimmers or unconscious people.

- **Type V (special-use device)** — Includes work vests, deck suits and hybrids for restricted use. Hybrid vests contain some internal buoyancy and are inflatable to provide additional flotation.

Source: Personal Flotation Device Manufacturers Association

Family strong!



Family engagement kit

<https://safety.army.mil>

Army Safe is Army Strong and that starts with a Soldier's Family. Have the information to help you and your Family stay SAFE.



The Road Less Traveled

LT COL. MIKE MILLER
Commandant of the Marine Corps-Safety Division
Camp Lejeune, N.C.

The day began as a perfect, cool, sunny Sunday morning in early October. I was driving along the Missouri–Arkansas state line from my home in Overland Park, Kan., to visit relatives in Pea Ridge, Ark. This easy, 225-mile drive should have taken me about four hours. Instead, I arrived 24 hours late and \$1,500 lighter in the wallet.

I started my journey at 6 a.m. after a good night's sleep. My trusty Dodge Dakota pickup was in excellent condition with four new tires providing a firm grip on the asphalt. I was eagerly looking forward to the drive on U.S. Highway 71, a direct route south from metro Kansas City to northwest Arkansas and the shortest route to my Uncle Norman's Quail Ridge farm. "Seventy-one highway," — as the locals call it — is a modern, limited-access, four-lane road resembling an interstate highway in every regard. I had thoroughly planned the trip, applying the tenets of risk management.

Just a few miles north of the Arkansas state line, I elected to take a more "scenic" route. I turned onto Missouri State Highway 90, a two-lane blacktop

road that passed through the "bourgeoning" metropolis of Jane, Mo. This proved to be a highly significant and costly tactical error.

Cruising along at 45 mph, I noticed a dense line of trees growing along the right side of the road. These trees effectively obscured a couple of trailer homes located on a gravel road intersecting my road from the right. Through my peripheral vision, I detected movement behind the trees. What I thought was a lone

“**RESEARCH** by the National Highway Traffic Safety Administration **REVEALS** that more than **70 PERCENT** of all **FATAL ACCIDENTS** happen on **RURAL** roads with speed **LIMITS OF 55** mph or higher.”

running black dog, turned out to be a dog chasing a 1969 Chevrolet step-side pickup.

The driver of the ancient Chevy never paused at the intersection and pulled right in front of me. Those trees had probably screened his vision just as they had mine. The look on his face was one of horror. Just before the impact, he looked at me, realizing he had driven into my lane and a Dakota "smack-down" was imminent. Shouting a colorful expletive, I stood on my antilock brakes, but there was nowhere to go. I braced for impact.

I remember hearing a loud BANG and then my truck's cab filled with smoke from the air bag. Snug in my seat belt, I don't recall my face bouncing off the bag; but later I had to wash off the white powder. I had been careful to keep my hands on the steering wheel's 9 and 3 o'clock positions. That's important because following the conventional wisdom of placing your hands at the 10 and 2 o'clock positions can lead to serious injuries when the air bag deploys. Suffering only minor burns to both thumbs, I was extremely lucky to be uninjured. My truck didn't fare so well. It was crunched beyond repair.

I consider myself fortunate to be alive. Research by the National Highway Traffic Safety Administration reveals that more than 70 percent of all fatal accidents happen on rural roads with speed limits of 55 mph or higher. These higher speeds, coupled with sometimes poorly engineered roads and slower emergency response times, all combine to make rural driving more hazardous. The state trooper responding to my accident was amazed (based upon my crumpled truck) that I was not seriously injured. I attribute that to the fact I consistently wear my seat belt, drive within the posted speed limit and have antilock brakes. If only the other driver had insurance, this mishap would have only cost me time and inconvenience — not cash!

We can all learn from others. Motor vehicle collisions will happen even when you're doing everything right. Also, don't assume high-speed interstates are the most dangerous places you can drive. Sometimes it's while you're enjoying a more relaxed "scenic" route that the unexpected happens. Don't presume you are safe just because you're in an idyllic setting. Always watch out for the "other guy." He might just make you a victim of his bad decisions. ◀

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ONE IRRATIONAL DECISION CAN CHANGE EVERYTHING

CHIEF WARRANT OFFICER S RANDY MILLER
1st Battalion, 351st Training Support Battalion
Fort Stewart, Ga.

As night approached, the crews were getting ready for their night vision goggle (NVG) training mission. The task for this night was to conduct readiness level (RL) progression for hoist operations. As the crew adjusted their NVGs and “cranked” the UH-60, they had no idea a routine litter hoist training mission would result in something much more.

Performing RL progression tasks are standard procedures; yet crews often approach these tasks with anticipation and excitement, especially the “new guys.” On this night, one of our junior pilots (PI) was completing his aerial reconnaissance low-altitude progression tasks for hoist operations. The crew mix was right — an experienced

pilot in command (PC) and a senior crew chief, both having conducted this mission on several occasions, were paired with an inexperienced PI. The flight plan was routine and the PI briefed the mission to the PC and crew chief. Neither crewmember had any serious questions about the mission. At the successful completion

of this training, the PI was anticipating a progression to RL 1.

This training mission was a combination RL progression flight and training for ground crews to learn how to hook up a litter for aerial extraction. The PI brought the aircraft to a 50-foot hover above the ground level and the crew chief deployed the hoist, lowering a litter to the trainees

on the ground. Some of them had eagerly discussed how awesome it would be to be winched up in the litter to the aircraft hovering overhead. This was the eventual plan; but, first, a few practice winch down-and-up exercises were required to make sure everything worked as planned.

With the cable lowered to the ground and the simulated initial hookup, the Stokes litter basket began its ascent to the aircraft. During the ascent, the litter began to swing back and forth, with each oscillation more pronounced the closer it got to the aircraft. Ultimately, the litter rapidly swung out of control. The crew chief reached out with his gloved hand to control the back-and-forth movement; however, his attempt proved useless and the oscillations continued. The crew chief then used both hands to try and stop the rapid oscillations, but to no avail.

The crew chief's leg dangled outside the aircraft's door as he used his whole body in an attempt to stop the swinging litter. Suddenly, his leg became wedged between the hoist cable and cabin floor. The hoist continued to apply pressure to the cable until, without warning, the litter swung out, struck something on the aircraft and crashed to the ground with about 3 feet of steel cable hanging from the attachment point.

Fortunately, no one was injured nor was any equipment damaged. The aircraft landed safely and the crew chief was treated for minor bruising to his leg. The UH-60 sustained minor cosmetic damage from the cable scraping the airframe.

As the aircraft crew joined the trainees on the ground, everyone silently said a prayer of thanks that no one was in the litter taking the "ride of their life!" Maintenance

personnel inspected the aircraft immediately to determine why the cable suddenly snapped. Upon closer inspection, they found the cable had not snapped; rather, a protruding bolt from the aircraft wheel had cut it. This caused the cable to fail and the litter to fall 70 feet.

Lessons Learned

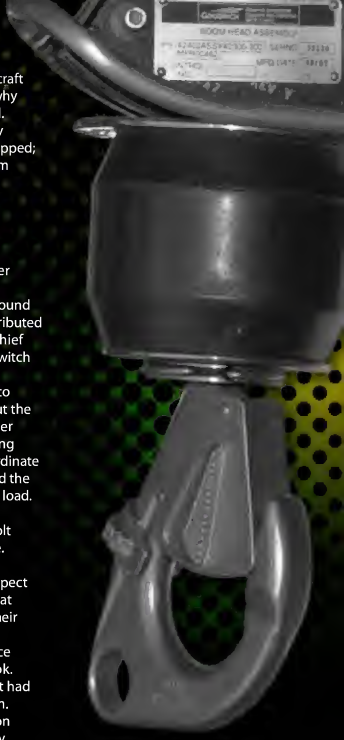
The battalion safety officer immediately conducted an accident investigation and found additional failures that contributed to the accident. The crew chief did not place his intercom switch to "hot mike" to allow crew coordination and he failed to lower the hoist cable without the litter attached to reduce litter oscillations. This failure, along with the failure to crew coordinate with the pilots, compounded the problems with handling the load.

Maintenance personnel tightened the protruding bolt that caused the cable failure. The battalion commander directed the company to inspect all aircraft for other bolts that might have backed out of their required positions, as well as determine if maintenance was performing by the book. Fortunately, no other aircraft had bolts protruding from them.

The next day, the battalion commander ordered a safety stand down to discuss lessons learned and to remind all aviation crewmembers that flying helicopters is dangerous business. He stressed that flight crews should plan their missions and preflight their aircraft with meticulous detail. Risk assessments are not just a "check-the-box" exercise, they take aviators one step closer to accident prevention.

Thankfully, no one was injured in this incident. Nevertheless, the

ground personnel recognized how close they came to death. Just thinking about "joy riding" in the litter on the hoist up to the aircraft wasn't using good common sense. This incident is a good example of the dangerous jobs we perform every day. It is also a reminder how the addition of variables can affect mission risk. Use common sense when planning your next mission. One irrational decision can change everything. ◀





CALIFORNIA ROLL = CAREER SUICIDE

CHIEF WARRANT OFFICER 3 ALEXANDER CONDE
Detachment 25, Operational Support Airlift
Tennessee Army National Guard
Smyrna, Tenn.

It had been a difficult and challenging time in flight training the previous few weeks at Fort Rucker, Ala. I was a very green warrant officer not long out of candidate school and only 24 years old. I thought I had the world by the tail and my future looked so bright I had to wear shades!

Given the hard work we had been putting in the past few days, a number of us decided to relieve some stress at a local Daleville watering hole. We arrived early in the evening and commenced to partying like the young guns we were. The drinks were flowing and we were having fun. It was starting to be a great evening.

But we made a tactical error in not identifying a designated driver or planning for a cab. Despite my increasingly inebriated state, I recognized that fact and decided to lay off drinking the rest of the evening so I could drive us home. I switched to drinking water, hoping that would enable me to safely operate a car in a couple of hours. (*Not exactly a foolproof strategy — the Eds.*)

The night wound down and we closed the bar. I felt fine to drive (or so I thought) and my cohort

was in no condition to get behind the wheel. I planned to drive us back to the bachelor officers' quarters (BOQ) on post. Shortly after getting into the car, my buddy passed out in the passenger's seat. I drove to a rarely used back gate near the bar that would provide us the shortest route to the BOQ, minimizing our time on the road.

So far, so good! The BOQ was in view and it would only take a minute or two to drop my buddy off and then move on to my room. It was then I spotted a blue light flashing in my rearview mirror. A sight everyone dreads seeing was at my six. I was being pulled over. I couldn't believe it was happening to me.

I pulled over to the side of the road and waited for the military police (MP) to approach. Thoughts of the career suicide I was about to commit were running through my head. If I was lucky, I could

get my enlisted job back on M3 Bradleys. Worst case, I could be back at Pizza Hut, tossing pies.

I rolled down the window as the MP came up to the side of my car. The first thing he noticed was my passed-out friend in the passenger's seat.

"Do you know why I pulled you over," he asked.

"Uh, I have no idea," I replied.

"You didn't come to a full stop at the stop sign (aka "California Roll") back there when you came on post," he said. "What's wrong with him," he asked, pointing to my friend.

I told him we had been at a bar and he'd had too much to drink and passed out. As I handed my license and insurance to the MP, he asked me if I had been drinking.

"No, of course not," I lied.

He proceeded to return to his vehicle as another MP car parked in front of mine.

After a short delay, both MPs approached my vehicle. They clearly doubted my story as they asked me to step out of the vehicle and submit to a sobriety test. There I was on the side of road, performing the tests to the best of my ability. I thought I was doing well and home free until they brought out the breathalyzer. I remember thinking, "Why didn't they just bring that out first and get it over with," as I blew into it. I thought for sure I was dead meat at this point. Those things don't lie, right?

Well, I must have passed because they released me to drive home. I never did find out what I blew, but I didn't care at that point. I just wanted to get back to the BOQ and put this night behind me. They even congratulated me on being such a responsible officer and driving my passed-out friend back from the bar. They took my name and unit and promised to let my chain-of-command know what a great job I did. If they only knew!

To this day, I still can't believe I made it out of that situation scot-free. I thought for sure I was going to be talking to the "man" on Monday morning and getting my discharge papers in order. Despite all of the safety briefings, classes and options available to me, I still took a stupid chance and drove after drinking. And this was after a classmate got drunk, fell asleep at the wheel, crossed a median and struck a car head-on, killing two people. The same thing could have easily happened to me.

I vowed never to let something like this happen to me again — a promise I have kept to this day. I was fortunate not to have ruined my Army career or, worse, had an accident that injured or killed others. As Leaders, we are expected to set the example. We have to stay engaged and disciplined and hold ourselves accountable to the same standard we expect from our Soldiers. I learned from my experience and have chosen to set the kind of example my Soldiers can follow. ◀



The Privately Owned Vehicle (POV) Risk Management

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The toolbox contains best practice examples and lessons learned that can be used as accident prevention measures when developing a unit POV safety program.

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Watch Your {Gr}ass

NEIL MILLER
U.S. Army Corps of Engineers
Buffalo, N.Y.

Spring is in full swing, which means many lawn-conscious homeowners are working to return their grass to its mid-summer glory. Before tending to your turf or whacking your weeds, make sure you have the proper protective equipment to do the job safely.



DID YOU KNOW?

Since fiscal 2000, more than 20 Soldiers have been injured in lawnmower-related accidents, including:

- A Soldier slipped in mud while operating a push mower and caught his foot in the blade. The Soldier lost a portion of one toe and fractured three others.
- A Soldier was struck in the mouth by a rock that was propelled by a lawnmower 20 feet away. The Soldier lost a tooth and received 10 stitches in his lip.
- A Soldier severed his finger while attempting to adjust the wheel height on a running lawnmower.
- A Soldier slashed his foot when he attempted to kick the deck of a lawnmower to free it from a tree root. The Soldier missed the deck and caught his foot in the mower blade.
- A Soldier cut off his finger while attempting to clear a blockage from the discharge chute of a running lawnmower.

LAWN CARE



For many of us, yard work has become so routine that we've grown complacent when operating lawn equipment. Common sense should tell us that the lawnmower is one of the most dangerous machines we use at our home. Still, each year about 68,000 people are injured by lawnmowers. According to the American Academy of Pediatrics, more than 9,000 of those injuries are to people under the age of 18.

When using machinery at work, we are expected — and required — to use personal protective equipment (PPE). There is no reason to think we shouldn't wear PPE when dealing with dangerous equipment at home. After all, weed trimmers and lawnmowers have strings and blades that operate at very high revolutions per minute. At these speeds, rocks or other objects become deadly projectiles.

When using lawn equipment, you should always wear safety glasses, gloves, earplugs/muffs, long pants and sturdy shoes or boots. Here are some other simple tips on how to be safe while operating a lawnmower and weed trimmer:

- If purchasing a push mower, get one that has a safety bar that must be engaged for the engine to operate. Never disengage this feature.
- Walk the yard before mowing and pick up any toys, rocks or other objects the lawnmower can run over.
- Start and refuel the mower or weed trimmer outdoors to avoid fire hazards.
- Do not fill a lawnmower or weed trimmer with gasoline while it is running.
- When using a weed trimmer, position the cutting head at a 30-degree angle to the cutting area.

To prevent lawnmower injuries to children, the American Academy of Pediatrics recommends the following:

- Children younger than 16 should not be allowed to use riding mowers. Children younger than 12 should not use push mowers.
- Wear sturdy shoes (never sandals or sneakers) while mowing.
- Use a collection bag for grass clippings or a plate that covers the opening of the discharge chute. Always wear hearing and eye protection.
- Make sure that children are indoors or at a safe distance well away from the area you plan to mow.
- Only push a lawnmower; never pull it toward you.
- Never attempt to change the wheel height adjustment on your lawnmower while the engine is running.
- When the mower blade needs servicing, it's a good idea to remove the spark plug before putting your hands near it.
- Check for wear and tear before operation.
- Make sure an adult sets the blade height settings with the mower off.
- Do not pull the mower backward or mow in reverse unless absolutely necessary, and carefully look for children behind you when you mow in reverse.
- Always turn off the mower and wait for the blades to stop completely before removing the grass catcher, undocking the discharge chute or crossing gravel paths, roads or other areas.
- Do not allow children to ride as passengers on riding mowers.
- Stop operation if someone comes within 30 feet of you.

Always be aware of your surroundings and never become complacent with the hazards present when operating these powerful machines. By wearing proper PPE and adhering to the other precautions mentioned above, you can keep your yard groomed without becoming a safety statistic. <<

A LEADER'S GUIDE TO MOTORCYCLE ME



Commanders, does the idea of having a newly arrived Soldier in your unit — one who just redeployed and bought a powerful new motorcycle — send a shiver down your spine? As Leaders, we all grimace at reports of Soldiers dying in motorcycle accidents and wonder how we can help prevent the next fatality. As a former battalion commander and motorcycle mentor, I feel very strongly that engaged Leaders can make a difference in preventing motorcycle accidents. I also believe an effective motorcycle mentorship program (MMP) is a commander's best tool for mitigating riders' risks.

As a commander, your first step is to establish or adjust your MMP. To do that, you'll need to decide upfront who will be your senior mentor and what type of program you want. Your senior motorcycle mentor should be your special staff officer, running the program according to your guidelines. They don't have to be your most senior rider, but they need to be someone who has earned your trust. They should be experienced riders with good safety records who are well respected by your unit's riders. The type of bike they ride is irrelevant. What is essential is they have the time to devote themselves to the program and possess a passion for leading and training Soldiers.

MENTORSHIP

LT. COL. KEVIN CHRISTENSEN
Joint Multinational Readiness Center
Hohenfels, Germany



There are three fundamental components to an MMP — knowledge, skills and attitude. Anything you can do to increase your riders' capabilities in these areas will help reduce risks. Your garrison commander should have an existing Motorcycle Safety Foundation (MSF) program offering the MSF's basic and experienced rider courses. As a commander, you can feel confident these courses will go a long way toward giving your riders the necessary knowledge and skills for safe riding. However, it is the motorcycle mentor's unique role to identify and change those rider attitudes which lead to high-risk behaviors.

What does it take to modify a rider's behavior? Well, the good news is the same skills that make an effective unit Leader also make for an effective mentor. Pairing new riders with mentors allows the mentor an opportunity to assess the rider's knowledge, attitude and

skills and share that with you. Since you, as the commander, have to sign the new rider's risk assessment, ask your mentor what you can do to mitigate the risks. This might mean keeping the new rider with a mentor until certain milestones are met (maybe a couple of rides in increasingly demanding conditions). Some new riders may not be happy with that, yet it might be precisely what they need. To help identify high-risk riders, here are some "red flags" to look for:

- Behavioral issues — particularly a sense of indestructibility. Soldiers who lack maturity and sound judgment will demonstrate those same traits when they ride, taking unnecessary risks such as not wearing their personal protective equipment (PPE).
- Acts of indiscipline. If a Soldier known for indiscipline shows

up as the proud owner of a new motorcycle, then you probably have trouble brewing.

- Unwillingness or resentment toward participating in MSF courses and mentorship programs. Those who push back the hardest are typically the ones who need these programs the most.
- Junior riders (not necessarily by age, but by experience) trying to ride machines too powerful for their skill level.
- Soldiers returning to riding after a break of several years who want to pick up where they left off. When riding with more skilled riders, they might be tempted to ride beyond their current abilities.



Mentor Responsibilities

Your senior mentor should maintain a training folder for each of your riders which you can both review. I recommend these folders include the following items:

- Copy of the rider's driver's license with motorcycle endorsement (check to ensure it is valid).
- Copy of the rider's MSF card.
- Proof of insurance.
- Risk assessment and mitigation plan with appropriate level commander signature.
- Copy of MSF tires, controls, lights, oil, chassis and stands (T-CLOCS) checklist completed by the mentor.
- A counseling statement indicating the rider has read and understood the commander's policy concerning safe motorcycle operation.

Understand Your Riders

Even if you don't ride, you need to understand what goes on inside your riders' heads. They're not a homogeneous group by any measure. However, rather than grouping them by what they ride — sport bikes, cruisers, touring, etc. — group them by why they ride:

▪ **Those who ride to hone their skills.** Your mentorship program might not be what these riders are looking for. They're looking to increase their bike's performance and add skills to their kit bag. They ride on the open road or a closed track. For them, riding is a sport for which you train to become better.

▪ **Those who ride as a means of transportation.** These are your "get-back-and-forth-to-work" kind of riders. They ride throughout the year, including during inclement weather. When these riders take longer trips, they tend to do so by themselves or in small groups.

▪ **Those who ride for the social aspect of being a motorcycle rider.** These riders enjoy getting out and seeing the countryside with other like-minded riders. They relish the sense of freedom that comes from riding and love feeling a part of something that is more than just two wheels and an engine.

As a commander, which group should you be concerned with? The answer, of course, is all of them. Each has their own unique risk factors that motorcycle mentors can help mitigate. And don't forget your dirt bike riders.

You may not even know who they are since their bikes generally do not show up at the workplace.

Selling the MMP to Your Riders

What can you, as a commander, do to encourage your riders to participate in an MMP?

- Establish a sense of inclusiveness — ensure your MMP is designed to benefit all of your riders. Including Family members may increase participation in some groups.
- Build an incentive program that rewards safe riders.
- Encourage riders to buy high-quality, effective PPE and wear it.
- Reinforce the role of your designated motorcycle mentor with subordinates in your command.
- Send out a policy letter explaining your command policies regarding participation in the MMP. Don't over-engineer your program. Make it simple enough for your mentors to execute.
- Team with your garrison commander. If you don't have someone in your unit to meet your program's mentorship requirements, your garrison may have military or civilian riders who can help.
- Encourage your riders to establish a club. This can be a private organization operating on your installation. A good riding club will enhance the riders' image and promote safe riding through informal coaches and mentors.

- Don't restrict your Soldiers from riding unless you think their risk is so high you can't mitigate it through training and mentorship. Just as it is in any military unit, meaningful repetition is the key to developing skills that make Soldiers and motorcycle riders successful.
- Don't pick on your sport bike riders. They could be your most highly skilled riders and are also likely to have (and wear) good PPE. Worry more about Soldiers riding machines beyond their training and skills. Focus on your riders' attitudes and behaviors.

Bottom Line

Protecting Soldiers is "commander" business. Establishing an MMP with a wisely chosen mentor can help you mitigate your riders' risks, whether or not you ride with them. However, as a rider, supporting an MMP allows me to do two things I already enjoy — ride motorcycles and lead Soldiers. Leaders who provide their riders good mentorship programs can help them live to ride another day.◀



Have fun while helping your battle buddy!

MMP

MOTORCYCLE MENTORSHIP PROGRAM

**Check out the USACR/Safety Center
MMP Web site for some examples
of active mentoring programs.
<https://safety.army.mil/mmp/>**

MMP
Motorcycle Mentorship Program

Motorcycle Mentorship Program

The purpose of the Motorcycle Mentorship Program is to provide Soldiers with the knowledge, skills, and experience to safely and responsibly ride motorcycles. The program is designed to help Soldiers develop the skills and knowledge needed to ride safely and responsibly, and to provide them with the support and resources they need to succeed.

Key Features:

- **Training:** Provides Soldiers with the knowledge and skills needed to ride safely and responsibly.
- **Mentorship:** Provides Soldiers with the support and resources they need to succeed.
- **Resources:** Provides Soldiers with the tools and materials they need to ride safely and responsibly.

How to Get Involved:

- **Find a Mentor:** Look for a mentor who is experienced and knowledgeable about motorcycle riding.
- **Find a Buddy:** Find a buddy who is also interested in learning to ride.
- **Find a Group:** Find a group of riders who are interested in learning to ride.

When is Enough.

As pilots, we push not only ourselves, but our fellow crewmembers and aircraft. I want to tell you a story where I pushed my co-pilot, the airframe and myself into a series of events that could've ended tragically for everyone.

We took over the Multinational Division Center (MND-C) from the previous unit and pulled missions throughout the area of operations. The MND-C is a huge area in Iraq, ranging from Talil in the south, all the way to Baghdad International Airport (BIAP). On this day, our team of two Apaches was executing missions in the Forward Operating Base (FOB) Hammer area, about 50 km east of Bagdad. This area had seen some recent improvised explosive device strikes as the brigade pushed into the insurgent-held areas to the north and east. Our brigade was based at "Hammer," which also had a two-point forward arming and refueling point (FARP).

After finishing the mission, we headed to the FARP for fuel before heading back to BIAP. I was lead, with my co-pilot as the air mission commander (AMC). We always had a great time flying together and enjoyed our casual atmosphere. In the other aircraft, the crew consisted of an instructor pilot and a captain in the front seat.

No sooner had I leveled off at 1,500 feet than I smelled something burning. I asked my co-pilot if he smelled a burning odor. He said, "No," adding this aircraft had burned a generator the day before. He explained that it was probably residue resulting from the

previous generator. We both laughed and headed away from FOB Hammer. (First chance to land.)

Maybe another 10 minutes into the flight, I got another burning smell — this one more intense. I asked my co-pilot again if he smelled anything. He told me he didn't. I insisted there must be something burning. He brought up the residue again. We soon got a GEN 1 FAIL warning light and a dose of burning plastic odor in both crew stations. We talked about it briefly, deciding to shut down the burned generator rather than reset it.

My co-pilot turned off the generator and I made the course change

to Al Rashid airfield, also called 11W. As we approached 11W, the smell had disappeared and the airframe had no other issues. Our wingman understood what was occurring and didn't see any smoke coming from our aircraft. As we crossed the Diyala River, my co-pilot and I asked each other if this was the best idea. We convinced ourselves that we had only a generator issue, the aircraft was still flyable and BIAP wasn't that far away. We both had been flying this aircraft the day before when the generator fire occurred and had landed at 11W. Due to lack of maintenance at 11W, we decided to return to BIAP. As we made

Enough?

CHIEF WARRANT OFFICER 2 RYAN A. INBODY
P Troop, 4th Squadron, 3rd Armored Cavalry Regiment
Fort Hood, Texas



the turn to head west, I saw 11W's long airstrip through our right door. (Second chance to land.)

We traveled another 10 minutes when grey smoke filled my cockpit. I passed the controls to my co-pilot because I couldn't see outside. We passed over Route Jackson, 20 km from BIAP. We could land at one FOB about 10 km to the north or at countless other small checkpoints; however, for the most part, we were in "bad guy" country. Regardless where we went, I had to get rid of the smoke. Somewhere around 134 knots true, I opened the cockpit door, holding it with two hands, and quickly vented the smoke. We pushed on to BIAP, leaving FOB

Falcon behind. After all, it was now the closest secure place to land. (Third chance to land.)

As we entered BIAP airspace, a loud, grinding sound came from behind my seat. It was the sound of the generator coming apart on the transmission deck. We were entering on a base leg and I honestly thought the generator was going to come apart and start flailing around. Turning onto final, we requested fire crews to meet us on the ramp. I landed, making a big air assault flare, and quickly taxied to the ramp. I pulled the engines off and shut down the aircraft while my co-pilot unstrapped and jumped out. I was about four steps behind

him. The fire crews were already around the aircraft. Once we were 100 feet away, we both turned around to look at the aircraft. There was no sign of smoke or fire. It turned out the generator had smoldered and ground itself to pieces. There was never any real fire, only smoke and grinding.

Lessons Learned

Our entire flight from FOB Hammer to BIAP was about 40 minutes. When I look back, every 10 minutes we had a chance to land the aircraft. Luckily, the smoke never turned into a real fire, but it could have easily done so.

Throughout our return trip, we could have done many things differently,

starting with returning to FOB Hammer, followed by landing at 11W or later at the FOB Falcon passenger terminal. However, we made the choice to push on, based on prior maintenance, duty day issues, location and at least a dozen other things. What I learned from this flight is that pushing your fellow pilots, your airframe and yourself can sometimes be unwarranted. Was it worth the risk? We were returning home without a mission. What's a night at FOB Hammer or 11W compared to burning one in? I gambled that we could make it back to BIAP and won. However, I wouldn't roll the dice on something like that again. <<



Lost at

Deep-sea fishing is one of my favorite pastimes. Whenever we get a chance, my friends and I like to rent a boat and head for open water. I thought we always took all the proper precautions before our excursions. However, a major oversight on one trip nearly made it our last.

The only problem with deep-sea fishing is you need a boat, which can be expensive. Fortunately, the outdoor recreation program at Hunter Army Airfield, Ga., allowed us to rent an 18-foot Sea Hunt boat for 24 hours for a price that didn't drain our E-5/E-4 wallets. The only requirement was for one of us to take a boating safety class.

Because fishing off the coast of Savannah, Ga., is a little different than fishing in our home state of

Michigan, my friend, Chewy, and I decided we needed a few boating trips to become acclimated. With each trip, we added various safety precautions to help ensure our safe return. We brought a handheld global positioning system (GPS) to navigate our way in and out and eventually bought a depth finder to ensure we didn't get stuck on sandbars. We even brought an extra life jacket just in case we needed one.

The entire summer passed without incident, so we decided it was time to leave the channel fishing behind and venture farther into the Atlantic. I told my father and brother-in-law about our plans for a weekend escape with several friends, and they both wanted to tag along. In hopes of avoiding Mother Nature ruining our trip, we planned to head out in early November, which is the tail end of the Atlantic hurricane season.

Unfortunately, a good fishing weather forecast doesn't come around every day during the winter months, but we were optimistic. That optimism turned to defeat

when, the day before our trip, the weather forecast called for a small-craft advisory. All we could do was hope the forecast changed before we launched the boat. To our surprise, the weather looked to be in our favor when we awoke the following morning. The forecast predicted high swells without white caps, and the small-craft advisory had been lifted. We rented two 18-foot Sea Hunt boats to carry our eight-man crew.

As we put the boats in the water and docked them at the pier, we had a brief conversation about the rough waters. We decided everything would be all right and set off on our journey, which would take us seven miles out into the deep blue yonder. As we made our way out of the sound, I said to myself, "The water is a lot rougher than I thought." The looks on my friends' faces revealed they were thinking the same thing. Still, we sailed on and made it out of the sound without incident. We had no idea what awaited ahead.

Entering the swells was breathtaking. As the first boat crested the top of a swell, it disappeared on the other side. In these conditions, turning around is the first thing that comes to mind. The problem was we couldn't. With swells that big, we knew we were likely to capsize while we were sideways to the swells during the turn. I looked at my father on the other



Sea

CHIEF WARRANT OFFICER 3 JONATHAN HURT
H Company, 4th Battalion, 3rd Aviation Regiment
Hunter Army Airfield
Savannah, Ga.

boat and realized I might have punched both our tickets. The only thing we could do was truck on.

Breaking swell after swell, we finally made it out to our location, where the water was rough but bearable. Well, it was bearable for some of us. Chewy, my father and I were the only ones who weren't seasick. As we collected ourselves, I reflected on our ordeal. Was I as prepared as I thought? If the boats capsized, could we have survived? To ensure all future fishing trips end smoothly, I'll always follow these tips:

- Heed the first weather warning. No trip is worth your life.
- If the conditions on the water appear rough, return to the marina.
- Always have the proper personal protective equipment, such as Coast Guard-approved life jackets, available for each passenger and yourself.
- Bring a GPS locator so you can be found if your boat capsizes.
- Always tell someone on land your route, launch location and expected time/place of return.
- Purchase a marine and weather radio.

We should have planned for many things on this trip, but we didn't. That lapse in judgment could have cost us our lives. It left me with an important lesson learned, though: Being too eager can have deadly consequences. Always think before you act. ◀

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FOR MORE INFORMATION

Nuts and Bolts: Saved by the Belt True Story

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Joint Force Headquarters
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Marietta, Ga.

It was 11 p.m. and I was headed home after work in Atlanta. It had rained earlier in the evening and the streets were slick with water and oil from the constant vehicle traffic. Being a downtown metropolitan area, one can only imagine the amount of oil that accumulates on the roads over the course of time. But I wasn't worried — it was a route I had driven countless times before.

I was looking forward to getting home and hitting the pit. I didn't have anything else I had to do, so I wasn't in a hurry as I drove. I was traveling west on Edgewood Avenue and attempting to turn left onto Pryor Street when my tires lost traction and my car went out of control. I saw a car, a building and a traffic light pole ahead. I thought I was about to die!

I struggled to regain control, but

I'd locked my brakes and couldn't steer. As a result, I slid through the intersection and smashed into the traffic light pole. The impact pushed the engine back into the driver's compartment. At that point I thought, "How could this happen?" I wasn't going that fast.

Luckily, I wasn't seriously hurt and only suffered a few bumps and bruises, along with some minor neck



WHAT DID YOU LEARN?

Take a look at the story to the left. Learn anything from it? Here are a few questions to help rattle a few brain cells. Some of these have more than one correct answer.

1. What can make driving on heavily traveled city streets particularly dangerous when it rains?

- A. Water can mix with oil that has dripped from other vehicles to produce an extra slippery surface.*
- B. Spray from passing vehicles and oncoming cars can coat your windshield and temporarily blind you.*
- C. Kids love using rain-slicked streets for impromptu water slides.*

2. How can you get into trouble doing something you've done many times before?

- A. You can become complacent and fail to pay close attention.*
- B. You might be tempted to take some (maybe not-so-safe) shortcuts to save time.*
- C. Since you can do it with your eyes shut, you get cocky and decide to try it that way.*


3. If you don't have ABS brakes, what is the best way to stop on a slick road?

- A. Close your eyes, stomp on the brakes and hope for the best.*
- B. Pump the brakes lightly and steer into the slide.*
- C. Turn the wheel, floor the gas pedal and try power sliding.*

4. When should you buckle your seat belt?

- A. When you get into the car and before you pull onto the road.*
- B. When you see a cop who might ticket you for not wearing it.*
- C. At the last second when you're about to hit something.*

Answers: 1. A, B; 2. A, B; 3. A, B; 4. A

A close-up photograph of a hand buckling a black seat belt. The buckle is red and black. The background is dark and out of focus.

and back pain. However, my vehicle didn't fare so well — it was a total loss. I did some research and found out I wasn't the only person to have a similar accident at that intersection.

After the collision, even though I wasn't visibly hurt, I was transported to Grady Memorial Hospital for observation and a CT scan. As I was lying on the gurney, I tried to imagine what would have happened had I not been wearing my seat belt. My mind jumped back and forth between the thought of being thrown through the windshield or being thrown from the car.

That night, I learned a lesson about driving on slick roads. Thanks to my seat belt, I'm still around to benefit from that lesson and share it with others. No one is a perfect driver. However, sometimes it's the simplest thing, like buckling up, that gives you a second chance at life. <

The 4-Foot

Fall

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U.S. Army Combat Readiness/Safety Center
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Identifying fall hazards isn't always easy because appearances can be deceiving — often affected by our own perceptions. For example, if you're 6 feet tall, you're taller than a 4-foot-high platform, which makes it easy to assume the platform isn't a fall hazard. On the other hand, if you're standing on that platform, you are now looking down from a height of 10 feet. If you fall, even from 4 feet, you could be seriously injured.

The Occupational Safety and Health Administration (OSHA) recognizes falls from any height can be serious. As a result, OSHA requires protection for those working at heights at or above 6 feet for construction work or 4 feet for general industry. Under the general industry standard, stated in 29 Code of Federal Regulations (CFR) 1910, Subpart D, Walking-Working Surfaces, OSHA provides requirements for guarding floor and wall openings to prevent workers from falling. These standards also apply to the military when not in military-unique situations.

Protection for floor openings.

Every floor opening must be protected against accidental falls by a guardrail system or cover. These openings include stairs having four or more risers, hatchways or chute floor openings, skylights in the roof, pits and trapdoors, manholes and any other floor hole greater than 1-inch

DID YOU KNOW?

The U.S. Bureau of Labor Statistics recorded in 2008 that private industry experienced more than 85,000 falls with injuries serious enough to require days away from work. More than 18,000 of those falls involved falling down a flight of stairs or steps.

wide. Another way to protect against accidental falls from floor openings is to provide a door or gate opening directly to the stairway. OSHA states that a platform shall be provided between the doorway and stairway with the swing of the door not reducing the effective width to less than 20 inches.

Protection for wall openings.

Every wall opening, whether permanent or temporary, with a drop of more than 4 feet to the next lower level must be guarded by standard railings and toe boards where there is exposure below to falling material. (This is to keep tools and other materials from falling on workers below.) Toe boards must be a minimum of 4 inches high with less than a quarter-inch clearance above floor level.

Protection for open-sided floors, platforms and runways. Every open-sided floor or platform 4 feet or more above the next lower level or ground level must be guarded by a standard railing on all open sides except where there is an entrance to a ramp, stairway or fixed ladder.

Stairway railing requirements.

As mentioned earlier, every flight of stairs with four or more risers must be equipped with standard handrails. OSHA states the following requirements for handrails:

- Stairways less than 44 inches wide with both sides enclosed must have at least one handrail, preferably on the right side descending.
- Stairways less than 44 inches wide with one side open must have a railing on the open side.
- Stairways less than 44 inches wide with both sides open must have a railing on both open sides.
- Stairways more than 44 inches wide, but less than 88 inches wide, require one handrail on each enclosed side and one stair railing on each open side.



Requirements for fall protection during construction activities extend beyond the requirements for general industry. For more information on fall protection for construction activities, consult your local safety office, 29 CFR 1926 standards and the U.S. Army Corps of Engineers' Safety & Health Requirements Manual (EM 385-1-1).

- Stairways more than 88 inches wide require one handrail on each enclosed side or a stair railing on each open side and an intermediate stair railing located in the middle of the stairway.

Standard railing, stair railing and handrail requirements. There are specific requirements when constructing and installing standard railings. As seen too often, flimsy chains guarding an open pit in the maintenance bay do not meet the requirements for fall prevention. Standard railings must consist of posts, a top rail and an intermediate horizontal rail or other form of protection between the top rail and the floor. The vertical height shall be 42 inches from the upper surface of the top rail to the floor and the construction must be sturdy enough to support 200 pounds.

Stair railings protecting the open side of a stairway have the same construction requirements, except they shall not be more than 34 inches high or less than 30 inches to accommodate easy grasping. Handrails are similar to stair railings in that they must also be no more than 34 inches high or less than 30 inches and must withstand 200 pounds. It's also important to note that handrails must provide at least a 3-inch clearance to the wall and brackets will not be spaced farther than 8 feet apart.

Hazard Identification.

Identifying fall hazards can be challenging and depends on the

nature of your job and working environment. So where exactly are the hazards? Examples include loading docks, security towers, motor pool bays and maintenance activities for vehicles and aircraft. Assess all work performed at elevated heights and determine if fall protection is required. Look for all unprotected walkways, working areas, holes, leading edges, stairways and other walking/working surfaces higher than 4 feet.

For construction activities, the trigger height for fall protection requirements is increased to 6 feet above the ground or next lower level and 10 feet for scaffolding. According to OSHA's 29 CFR 1926 construction standard, the term "construction activities" refers to actual construction, alteration and/or repairs, including painting and decorating.

Conclusion

With all of the requirements for fall protection, it is easy to become overwhelmed and discouraged. However, always remember to protect individuals working or walking 4 feet above the ground or next lower level. Spending the time up front to conduct a thorough job hazard analysis and workplace assessment to identify fall hazards can save a lot of time and, possibly, even a life. ◀

Accidents occurred between Jan. 1-31, 2010



LOST

AVIATION

AH-64D



CLASS B

- The crew received an NP FAIL/HIGH engine overspeed reading while at a hover, followed by failure of the No. 2 engine. Post-flight inspection revealed the No. 2 engine input driveshaft had failed.

CH-47D



CLASS B

- While attempting to land to an unimproved landing zone, the aircraft's front rotor system struck rising terrain, resulting in damage to three front rotor blades.

MH-47



CLASS C

- During post-flight taxi, the aircraft struck a light pole with the aft rotor blades.

OH-58C



CLASS C

- During engine start, the turbine

outlet temperature reached 1,000 C for one second.



CLASS C

- The crew experienced an engine/transmission overtorque condition during an approach.
- During run-up, the aircraft experienced an engine overspeed of 124 percent for two seconds.

UAS

RQ-7B



CLASS C

- The unmanned aircraft crashed during launch when the recovery chute deployed.

GROUND

AMV



CLASS A

- A Soldier was killed when he was ejected from an M1151

HMMWV that overturned on a wet gravel road.

Explosive/Fire



CLASS B

- The turret of an M2A2 Bradley was damaged when the vehicle's heater malfunctioned following installation and started a fire. The crew was able to extinguish the fire with a water hose.
- A Soldier lost portions of his fingers on both hands when a foreign explosive fuze detonated. At the time of the explosion, the Soldier was examining the fuze, reportedly using a set of pliers.

Personnel Injury



CLASS A

- A Soldier fell to his death from a cliff while hiking with another individual. At the time of the accident, the Soldier was attempting to retrieve gear he had dropped during a previous hiking trip.

ARMY >> AVIATION LOSSES

Fiscal 2010

through April 8, 2010



Class A/Fatalities

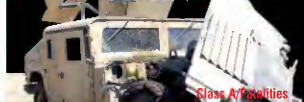
ATTACK	0/0
RECON	2/4
UTILITY	4/4
CARGO	1/0
TRAINING	0/0
FIXED-WING	2/0
UAS	3/0

TOTAL 12/8

ARMY >> GROUND LOSSES

Fiscal 2010

through April 8, 2010



Class A/Fatalities

AMV	8/4
ACV	7/6
PERSONNEL INJURY <small>includes weapons-handling accidents</small>	11/12
FIRE/EXPLOSIVE	1/1
PROPERTY DAMAGE	0/0

TOTAL 27/23

ARE YOU A SHARPSHOOTER?

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RANGE & WEAPONS SAFETY TOOLBOX

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- A Soldier suffered fatal injuries when he inadvertently discharged a round from his privately owned weapon as he attempted to clear it.

CLASS B

- A Soldier suffered a permanent partial disability injury when he was struck in the abdomen by a round from a shotgun another Soldier was handling.

DRIVING

POV



CLASS A

- A Soldier was driving home from morning physical training when he pulled off the road to assist a stalled motorist. As he helped push the vehicle, he

was struck by a motorist in an SUV and crushed against the car he was pushing.

- A National Guard Soldier, home on Christmas leave from basic training, lost control of his car, struck a culvert and overturned three times. A fire ensued, consuming the vehicle and fatally injuring the Soldier, who was unbelted.

- A Soldier drove his pickup truck through a stop sign at a T-intersection, struck a berm, became airborne and then crashed. A passerby noticed the vehicle and notified authorities. The Soldier was pronounced dead at the scene.

POV DRIVING LOSSES

Fiscal 2010

as of Apr. 8, 2010

Class A/Fatalities

CAR	21/22
SUV/JEEP	5/6
TRUCK	3/3
MOTORCYCLE	9/9
PEDESTRIAN	4/5
OTHER*	1/1

*Includes vans and ATVs

46

TOTAL DEATHS

Fiscal 2009: 56 3-year average: 59

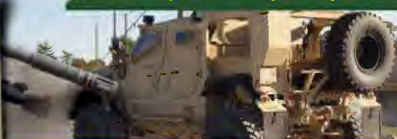
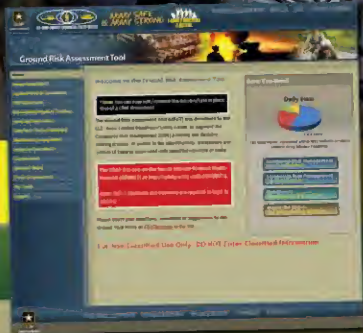
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GRAT-S

<http://safety.army.smil.mil>

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Address the hazards associated with the operation of MRAPs. Implement effective composite risk management, comprehensive training, situational awareness and effective leadership to keep Soldiers safe and avoid loss and damage to equipment.

BE AWARE.

MRAP

SAFETY AWARENESS

<https://safety.army.mil/MRAP>



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